

Notice of Allowability

Application No.

09/895,558

Examiner

Pedro J. Cuevas

Applicant(s)

RIECK ET AL.

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to After Final amendment filed on August 1, 2003.
2. ☒ The allowed claim(s) is/are 1-3 and 5-14.
3. ☒ The drawings filed on 30 June 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.
5. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - (a) ☐ The translation of the foreign language provisional application has been received.
6. ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application. **THIS THREE-MONTH PERIOD IS NOT EXTENDABLE**

7. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
8. ☒ CORRECTED DRAWINGS must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No. _____.
 - (b) ☒ including changes required by the proposed drawing correction filed 31 December 2002, which has been approved by the Examiner.
 - (c) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No. _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet.

9. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1 <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 2 <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3 <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 4 <input type="checkbox"/> Interview Summary (PTO-413), Paper No. _____. |
| 5 <input type="checkbox"/> Information Disclosure Statements (PTO-1449), Paper No. _____. | 6 <input type="checkbox"/> Examiner's Amendment/Comment |
| 7 <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | 8 <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9 <input type="checkbox"/> Other _____. |

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-3, and 5-14 are allowed.
2. The following is an examiner's statement of reasons for allowance.

Schiel clearly teaches the construction of a solenoid valve having:

a valve housing formed in one piece;

an electromagnet, which has a coil, a yoke, and a clapper armature in the fluid region;

at least a first valve seat, pressed into the valve housing and, to compensate for manufacturing tolerances, the first valve seat is adjustable in terms of the relative position thereof to the clapper armature by pressing in the valve seat;

a sealing element which can be actuated by the clapper armature and which co-operates with the first valve seat and being arranged between the two valve seats and the relative position of the valve seats to each other and to the clapper armature being adjustable by pressing in the valve seats; and

a shell-like form in the region of the arrangement thereof on the yoke pin; characterised in that:

the yoke has yoke pins and the clapper armature is pivotally and magnetically connected with one of the yoke pins at one end thereof that is remote from the sealing element while another yoke pin engages with another end of the clapper armature that is proximal to the sealing element,

a first resilient element is provided and acts on the sealing element for the purpose of a closure of the first valve seat by the sealing element,

a second resilient element is provided and acts on the sealing element, which co-operates with the clapper armature, for the purpose of a raising of the sealing element from the first valve seat,

the first resilient element and the electromagnet co-operating in such a manner that, when the electromagnet is excited, the sealing element is lifted away from the first valve seat and, when the electromagnet is not excited, the sealing element comes into closing contact with the first valve seat owing to the force of the first resilient element,

a second valve seat is provided and co-operates with a sealing element which can be actuated by the clapper armature.

Winter teach the construction of a spring piloted safety valve with jet venturi bias having a coil, which is wound directly onto the also unitary valve housing for the purpose of providing a biasing force that urges the armature to the armature closed position.

Nestler et al. teach the construction of a multi-way valve having a coil wound around an outer surface of the valve housing, and an armature being pressed onto the yoke corner by means of a spring for the purpose of pressing the armature against the end region of the actuating member in the vicinity of closing body.

The prior art of record, taken alone or in combination, fails to teach the construction of a solenoid valve as described by independent claim 1, characterised in that the clapper armature is guided through the coil.

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Dependent claims 2, 3, and 5-14 are considered allowable by their dependence on allowed independent claim 1.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

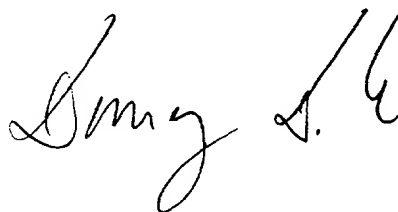
3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pedro J. Cuevas whose telephone number is (703) 308-4904. The examiner can normally be reached on M-F from 8:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Pedro J. Cuevas
September 3, 2003



DANGLE
MARY EXAMINER